To the Specification:

Please delete paragraphs [0008] through [0015].

Please replace paragraphs [0028] through [0030] with the following three amended paragraphs:

[0028] A drive system 30 is coupled to the cutting knife 27. The drive system 30 operates to oscillate the transverse cutting knife 27 by advancing the knife from a resting position to an active position and then retracting the knife to the resting position. The drive system 30 responds to an actuating signal to begin each oscillation of the cutting knife 27 from a resting position to an active position and back to the resting position. In the exemplary transverse web cutter 10, the transverse cutting knife 27 is driven by drive system 30 in the form of a pneumatic or hydraulic actuator. ~~actuator 30.~~ The actuator ~~30~~ may be double acting to both advance and retract the transverse cutting knife 27 or a spring may retract the knife. In the exemplary cutter 10, the actuator ~~30~~ is supported by the support bars 41. Thus the cutting knife 27 is partially advanced and retracted by the clamping operation.

[0029] The operations of the web cutter 10 are synchronized by a control system 29. Sensors 32, 33 may be provided to sense a signal such as a light source 34, 35 that is interrupted by the presence of the dancer roll 24. In other embodiments other types of sensors may be used to sense the position of the dancer roll. The control system 29 receives a signal, such as the signal from the accumulator system sensors 32, 33, to control the speed of the web cutter 10. It will be appreciated that the control system 29 may be integrated with other control systems 21 in a single unit. It will be appreciated

that the long term average speed (length of web processed in a given time) of all the web processes must be the same. The accumulator only accommodates instantaneous differences in speed between adjacent processes. When the dancer roll 24 rises above the upper sensor 32, the cutter may be signaled to reduce its speed. Conversely, when the dancer roll 24 falls below the lower sensor 33, the cutter may be signaled to increase its speed. In other systems, the speed of the web cutter 10 may be set to a particular value and the speed of preceding operations may be adjusted to match the speed of the web cutter.

[0030] The control system may control the first motor 28 to intermittently advance the web 110 at the speed set by the received speed setting signal. The control system may then control the second motor ~~28~~ 36to lower the clamps when the web advance is complete. The control system may then provide a signal to actuate the cutter drive system 30 and cause the drive system to oscillate the cutting knife from the resting position to the active position and back to the resting position. Finally, the control system may control the second motor ~~28~~ 36 to raise the clamps. The cutting cycle then repeats beginning with another advance of the web. While the cutting cycle has been described as a series of discrete operations, it will be appreciated that it is desirable to keep some or all of the motors in continuous operation because of the inertia of the machine parts. In particular, it may be desirable to ~~continuously~~ operate the second motor 36 continuously and control the clamping operation by the arrangement of the cam 40. The cam 40 may be provided in two or more adjustable parts so that the length and timing of the clamp lift are adjustable.

Please replace paragraph [0033] with the following amended paragraph:

[0033] The synchronization of web cutting to web clamping may be improved by providing a sensor 37 that provides a position signal when the cutting knife 27 is at a predetermined position that is substantially different than the resting position. The sensor 37 may be a photo-detector that detects light from a light source 43 passing through an opening 38 in the cutting knife. Other forms of sensors that will provide a reasonably accurate and repeatable position signal based on the position of the cutting knife may be used. The sensor may detect when the cutting knife is just touching the web, when the cutting knife is fully advanced, or some other position that is substantially different than the resting position of the cutting knife.

Please replace paragraph [0042] with the following amended paragraph:

[0042] In another embodiment, the synchronization signals provided by the sensor 31, which may be a shaft encoder, may allow the phase within the cutting cycle to be determined. The adjusting circuit ~~53~~ 52 may compare the synchronization signal to a target value and cause the actuating circuit 53 to provide the actuating signal substantially at the point within the cutting cycle that corresponds to the target value. The adjusting circuit ~~53~~ 52 may compare the synchronization signal to a goal value when the position signal is received to determine if the cutting knife has arrived early or late relative to the desired point in the cutting cycle and the target value accordingly.